APPENDIX F

SURFACE EMISSIONS MONITORING PROTOCOL

LANDFILL SURFACE EMISSIONS MONITORING PROTOCOL

This surface emission monitoring protocol is submitted in compliance with the requirements of the 40 CFR §60.753 (d).

Sampling Methods and Procedures

According to regulation a surface concentration below 500 parts per million (ppm) methane above background indicates proper operation of the GCCS. The following test methods and procedures for surface emissions testing satisfy 40 CFR §60.753 (d).

- A portable monitor in general conformance with 40 CFR Part 60, Appendix A, Method 21 will be used to determine the methane concentration at each sampling point. The instrument will be calibrated, according to the manufacturer's recommendations, for methane, diluted to a nominal concentration of 500 ppm in air.

- Monitoring will be performed during typical meteorological conditions.

- The background concentration will be determined by moving the probe inlet upwind and downwind outside the refuse permit boundary of the landfill at a distance of approximately 98 feet (30 meters) in areas without a synthetic cap and approximately 196 feet (60 meters) in areas with a synthetic cap in place.

- The detector probe will be positioned within 2 to 4 inches (5 to 10 centimeters) of the ground.

- A pattern of parallel lines approximately 98 feet (30 meters) or approximately 196 feet (60 meters) apart will be established over a majority of the surface area of the landfill that contains buried refuse. Areas of the landfill with excessive slopes will be excluded from SEM. A monitoring result will be recorded at the appropriate intervals. The anticipated pattern for monitoring of surface emission data is presented on the attached figure.

- Any areas where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover, will be monitored.

- Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

- Any detection of 500 ppm or more above background will be recorded as an exceedance. The location of the exceedance will be marked and recorded. Cover maintenance or adjustments to the GCCS will be made and the location will be re-monitored within 10 calendar days of the initial exceedance. If the re-

monitoring of the location shows a second exceedance, additional corrective action will be taken and the location will be re-monitored within 10 days of the second exceedance. A proposed corrective action plan and corresponding timeline will be submitted to the Administrator for approval for any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, except for when the exceedance will be corrected within 120 days by the addition of a new well or collection device.

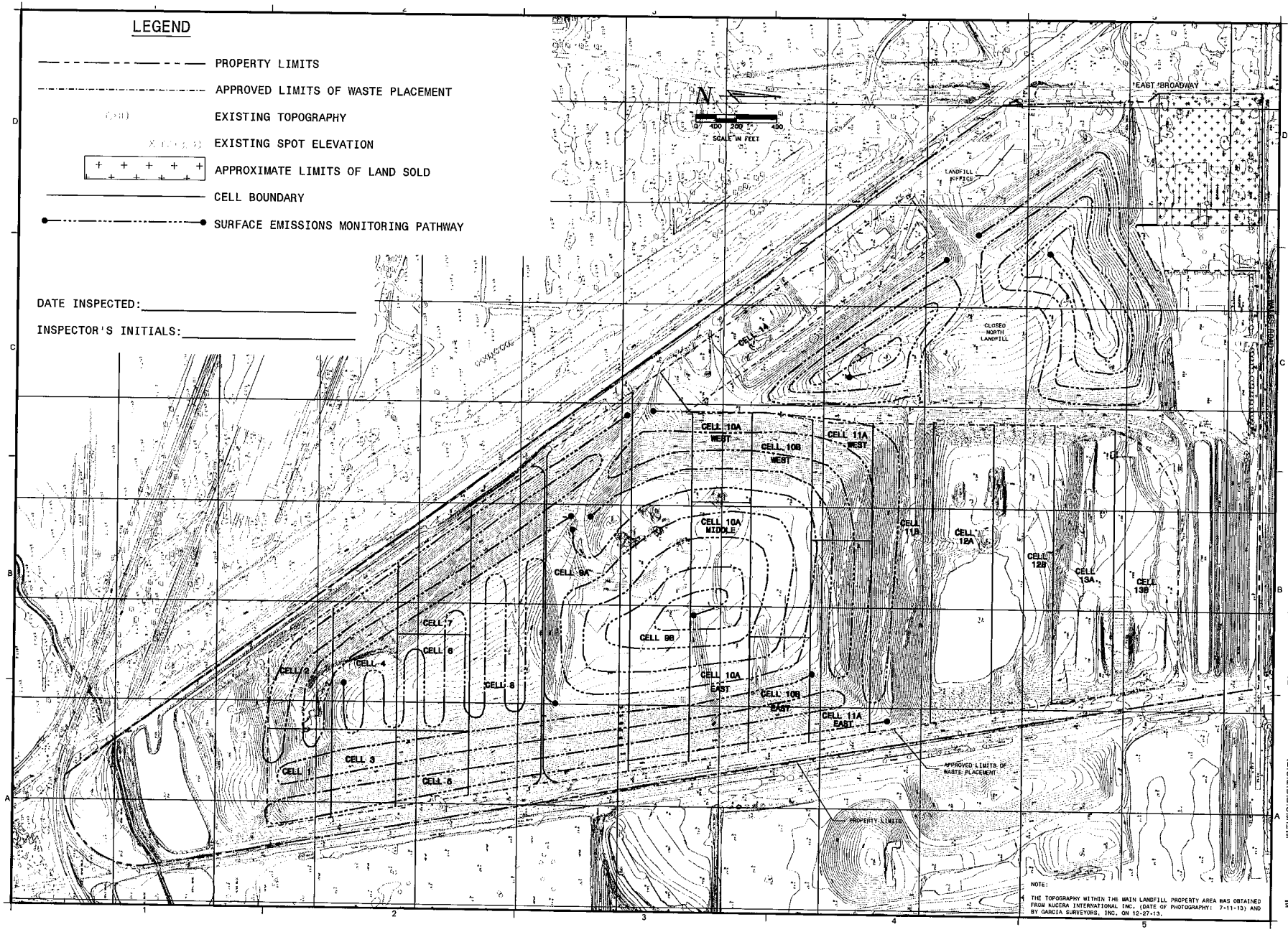
- Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day remonitoring (REM) event will be re-monitored 1-month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location will be performed until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the location will be re-monitored within 10 calendar days of the second exceedance. A proposed corrective action plan and corresponding timeline will be submitted to the Administrator for approval for any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, except for when the exceedance will be corrected within 120 days by the addition of a new well or collection device.

Frequency

Surface emissions monitoring will be performed quarterly on a calendar basis. If the surface emissions monitoring does not exceed 500 ppm above background at any point for three consecutive quarterly monitoring periods in portions/areas of the landfill that are closed or at final grade, monitoring will be performed annually in the areas/portions that are closed or at final grade. The site will return to quarterly monitoring of the closed/final grade portions/area of the site if any methane reading of 500 ppm or more above background is detected during the annual surface emissions monitoring event.

Recordkeeping

The location and concentration of each exceedance recorded during the surface emissions monitoring will be reported in an annual report to the Administrator. The concentration recorded at each location for which an exceedance was recorded in the previous month will also be included in the semi-annual NSPS report. Reports and monitoring records will be maintained with the site records for a period of five years.



Hull & associates, inc.

ENGINEERS | GEOLOGISTS | SCIENTISTS | PLANNERS

Professional Seal:

Name:

Date:

Project Title:

EVERGREEN RECYCLING AND DISPOSAL FACILITY, INC.

Owner:

EVERGREEN RECYCLING AND DISPOSAL FACILITY, INC.

2625 EAST BROADWAY
NORTHWOOD, OHIO 43619

Mark	Description	Date

Project No.:	WMH119
CAD DWG File:	WMH119.100.0004
Plot Date:	1/30/14
Layout By:	FNC
Drawn By:	CAC/SAH
Check By:	AMC
Scale:	1"=200'
Issue Date:	JANUARY 2014

Sheet Title:

SITE PLAN
SURFACE EMISSIONS MONITORING PATHWAY

Sheet Number:

C-101